REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 3 and 5 are cancelled. Claims 9 and 18 are amended. Claim 20 is added. Claims 1-20 are pending in the application.

I. Claim Objection

In the Office Action, at page 2, claim 18 is objected to because of informalities. In light of the Examiner's comments, claim 18 was amended.

II. Rejections under 35 U.S.C. § 112

In the Office Action, at page 2, claims 3, 5 and 9 were rejected under 35 U.S.C. 112, 1st paragraph as failing to comply with the written description requirement. Claims 3 and 5 were cancelled. Claim 9 was amended in light of the Examiner's comments. Accordingly, withdrawal of the § 112, 1st paragraph rejection is respectfully requested.

In the Office Action at page 3, claim 9 was rejected under 35 U.S.C. 112, 2nd paragraph as being indefinite. This rejection is respectfully traversed. Claim 9 recites that a standby mode or a maximum power saving mode is selected, not that a "power saving standby mode has already been selected [claim 9, line 3]," as alleged by the Examiner. Claim 9 further recites "determining the selection of the standby mode or the maximum power saving mode <u>as the selection of</u> the power saving standby mode when the flash memory is connected." Therefore, the selection of the standby mode or maximum power saving mode is only determined to be the selection of the power saving standby mode <u>when the flash memory is connected</u>. Accordingly, withdrawal of the § 112, 2nd paragraph rejection is respectfully requested.

III. Rejections under 35 U.S.C. § 102

In the Office Action, at page 4, claims 1, 3-8, 12, 14 and 17-19 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 6,336,161 to Watts. This rejection is respectfully traversed because Watts does not discuss or suggest:

> a controller to enable a power saving standby mode, to control the power management controller to store an operating state stored in the system memory to the flash memory, and to cut power supply to the system when the power saving standby mode is selected,

as recited in independent claim 1, does not discuss or suggest:

selecting a power saving standby mode;

storing an operating state stored in the system memory to a flash memory when the power saving standby mode is selected; and

cutting power supply to the system after the operating state has been stored.

as recited in independent claim 6, does not discuss or suggest:

a controller to control the power management controller to store an operating state data stored in the system memory to the flash memory when a power saving standby mode is selected, to cut the power supply to the system, and to store the operating state to the system memory when a normal mode is selected.

as recited in independent claim 14, and does not discuss or suggest:

copying an operating state data stored in the system memory to a flash memory when a power saving standby mode of the computer system is activated; and

copying the operating state data back to the system memory when a normal mode of the computer system is activated,

as recited in independent claim 18.

As a non-limiting example, the present invention as set forth in claims 1-20, for example, is directed to a computer system that includes a system memory, a power management controller, a flash memory, and a controller. The power management controller controls a power supply to the system. The controller enables a power saving standby mode and controls the power management controller. The power management controller is controlled to store an operating state stored in the system memory to the flash memory and to cut power supply to the system when the power saving standby mode is selected.

Watts discusses a computer configuration system and method in which a power-down mode is initiated. Once power-down mode is initiated, hardware configuration information is stored in a flash memory. Other system information such as frame buffer memory and other data is stored to the hard drive, and after all system information has been stored to either the flash memory or the hard drive, the computer is powered down in block 48. Then, upon start-up, the information stored in the flash memory is restored to the various memory locations.

Watts does not, however, discuss or suggest that a power saving standby mode is selected. Watts discusses initiation of a power-down mode, but does not suggest use of a controller to enable a power saving standby mode. The present invention, in contrast, makes use of the power saving standby mode, which is distinct from a powered-down mode. The power saving standby mode does not require a normal booting process, which allows for faster

resume time to return to the normal mode. Watts discusses that configuration information is stored to flash memory when the power down mode has been initiated, but does not discuss that an operating state stored in system memory is stored in flash memory when a power saving standby mode is selected. Watts further does not suggest that a controller controls a power management controller to store an operating state to the flash memory and to cut power supply to the system when the power saving standby mode is selected, as recited in independent claim 1, and similarly in independent claims 6 and 14.

As to claim 18, while Watts does discuss that after the power down mode is initiated, configuration information is stored to a flash memory, and upon start-up, information stored in the flash memory is restored to the various memory locations, Watts does not discuss or suggest that "operating state data stored in the system memory [is copied] to a flash memory when a power saving standby mode of the computer system is activated," and that "the operating state data [is copied] back to the system memory when a normal mode of the computer system is activated," as recited in independent claim 18. Watts is concerned with saving configuration information upon powering down the computer system and is not involved with saving an operating state upon activation of a power standby mode.

Therefore, as Watts does not discuss or suggest "a controller...to control the power management controller to store an operating state stored in the system memory to the flash memory, and to cut power supply to the system when the power saving standby mode is selected," as recited in independent claim 1 and similarly in independent claim 14, Watts does not discuss or suggest "selecting a power saving standby mode; storing an operating state stored in the system memory to a flash memory when the power saving standby mode is selected; and cutting power supply to the system after the operating state has been stored," as recited in claim 6, and Watts does not discuss or suggest "copying an operating state data stored in the system memory to a flash memory when a power saving standby mode of the computer system is activated; and copying the operating state data back to the system memory when a normal mode of the computer system is activated," as recited in independent claim 18, claims 1, 6, 14 and 18 patentably distinguish over the reference relied upon. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

Claims 3-5, 7-8, 12, 17 and 19 depend either directly or indirectly from independent claims 1, 6, 14 and 18 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 3 recites that "the controller is provided in a basic input/output system of the

system." Therefore, claims 3-5, 7-8, 12, 17 and 19 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

In the Office Action at page 5, claims 1-2, 6, 10, 13, 14 and 16 were rejected under 35 U.S.C. § 102(a) and 102(e) as being unpatentable over U.S. Patent Pub. No. 2003/145191 to Park. This rejection is respectfully traversed because Park does not discuss or suggest:

> a controller to enable a power saving standby mode, to control the power management controller to store an operating state stored in the system memory to the flash memory, and to cut power supply to the system when the power saving standby mode is selected,

as recited in independent claim 1, does not discuss or suggest:

> selecting a power saving standby mode;
>
> storing an operating state stored in the system memory to a flash memory when the power saving standby mode is selected; and
>
> cutting power supply to the system after the operating state has been stored.

as recited in independent claim 6, and does not discuss or suggest:

> a controller to control the power management controller to store an operating state data stored in the system memory to the flash memory when a power saving standby mode is selected, to cut the power supply to the system, and to store the operating state to the system memory when a normal mode is selected.

as recited in independent claim 14.

Park discusses a computer system and method of controlling the system in order to back up a user's last system environment in a flash memory when the system is turned off. Park discusses a system memory 5 where, while a user operates the computer system, if the computer system does not receive input from the user, the system goes into a power saving mode. When the computer system goes into the power saving mode, the user's last application data is stored in the main memory 5 and the whole computer system is turned off except for the main memory 5 to restore the user's last application operation environment of the computer system when the computer system is awakened from the power saving mode. The computer system then determines whether the system memory card 12 is connected to the computer system. When the card 12 is not connected, the last operation data is stored in the main memory 5, and when the memory card 12 is connected, the last operation data is stored in the memory card 12.

While Park does discuss a system memory, a flash memory and a controller, Park does not discuss that the controller "control[s] the power management controller to store an operating state stored in the system memory to the flash memory, and to cut power supply to the system when the power saving standby mode is selected." Park involves saving the last operation data to flash memory in the power saving mode, in which "the user's last operation data (i.e., last application operation) of the computer system is stored in the main memory 5 and the whole computer system is turned off except for the main memory 5 to restore the user's last application operation environment...when the computer system is awakened from the power saving mode." Park does not specifically discuss that "power supply [is cut] to the system when the power saving standby mode is selected" when the controller controls the power management controller to store an operating state in the system memory to the flash memory. As the operating state has been saved to the flash memory, the system memory is not required to be maintained on, so the power supply can be cut to the system after the operating state has been stored in the flash memory, as recited in claim 6, for example.

Therefore, as Park does not discuss or suggest "a controller to enable a power saving standby mode, to control the power management controller to store an operating state stored in the system memory to the flash memory, and to cut power supply to the system when the power saving standby mode is selected," as recited in independent claim 1, Park does not discuss or suggest "selecting a power saving standby mode; storing an operating state stored in the system memory to a flash memory when the power saving standby mode is selected; and cutting power supply to the system after the operating state has been stored," as recited in independent claim 6, and does not discuss or suggest "a controller to control the power management controller to store an operating state data stored in the system memory to the flash memory when a power saving standby mode is selected, to cut the power supply to the system, and to store the operating state to the system memory when a normal mode is selected," as recited in independent claim 14, claims 1, 6 and 14 patentably distinguish over the references relied upon. Accordingly, withdrawal of the § 102(a) and 102(e) rejection is respectfully requested.

Claims 2, 10, 13 and 16 depend either directly or indirectly from independent claims 1 and 14 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 13 recites that "the controller controls the power management controller to copy the operating state stored in the flash memory to the system memory via the universal serial bus port when the power saving mode is changed to a normal mode." Therefore, claims 2, 10, 13 and 16

patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(a) and § 102(e) rejection is respectfully requested.

IV. New Claim

New claim 20 recites a computer system including:

> a system memory;
>
> a power management controller to control a supply power to the system;
>
> a flash memory; and
>
> a basic input/output system of the computer system storing an operating state stored in the system memory to the flash memory and cutting power supply to the system, after being informed that the power saving standby mode is selected.

Nothing in the references relied upon discusses or suggests such. It is therefore submitted that new claim 20 patentably distinguishes over the references relied upon.

Conclusion

In accordance with the foregoing, claims 3 and 5 were cancelled. Claims 9 and 18 were amended. Claim 20 was added. Claims 1-20 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.
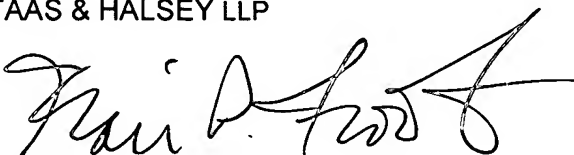
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _____9/14/06_____   By: _____

Kari P. Footland
Registration No. 55,187

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501